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ABSTRACT

Examining the adult's role in the development of responsive child care environments, this paper reviews several studies on children's daily learning experiences in the family, the relationship between parents' time spent with children and children's social skills and learning abilities, and the agents parents believe are responsible for the education and socialization of children. The paper discusses (1) recent societal trends of the family and maternal employment statistics; (2) amount of time parents spend in child care activities and demographic factors which influence the time that parents allocate to children; (3) how maternal education and employment influence the amount and quality of time that mothers spend with children; (4) how parent-child interactions at home affect children's cognitive development and academic achievement; (5) the relationship between quantity and quality of mothers' time spent with preschoolers and the children's preschool performance; (6) parents' preparation of children for first school experiences, including the education and employment characteristics of mothers and types of skills they teach their preschoolers; and (7) a comparison between types of school preparation provided children and their performances on measurements of cognitive development and school learning. Summary comments focus on how the above information might affect the decisions of early childhood educators. (SE)

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DEVELOPMENT IN THE FAMILY AND SCHOOL CONTEXT:

WHO IS RESPONSIBLE FOR THE EDUCATION OF YOUNG CHILDREN IN AMERICA?*

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INTRODUCTION:

A major focus for the 1978 NAEYC Conference as set out by the program planners is the "function of adult work with young children today." A corollary of this question is "who is responsible for child growth and development in America?" Indeed it is important for early childhood educators to take a new look at their role in light of changes in our contemporary society. Due to social-economic circumstances and changing attitudes of parents, "who is caring for young children in America?" is open for question. Many more children are entering child care or educational settings earlier due to federal programs. Increasing numbers of women are entering the work force requiring alternative child care settings for their children. More and more individuals in settings which provide services to children are finding parents handing over the responsibility for the growth and development of their children to caretakers and educators. This not only puts a burden of responsibility upon teachers and care workers, but it also necessitates some hard thinking and assessment of models of the "kinds of people we want our children to become" and the development of responsive programs to match these models.

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Two sources of information are crucial in helping us respond to these questions and responsibilities. First, it is imperative that we take a close look at the nature of the daily life experiences of the young children that we serve. As our clients are, for the most part, pre-schoolers, we must look to the family for the context of children's experience outside of early education settings. Appropriate general questions include, 1) Which adults in society are available to children, and 2) Which adults are attending to children? More specific questions include, 1) What activities do parents share with young children, 2) How much time do they spend with children on a daily or weekly basis in social and educational activities, 3) To what degree do they rely on other institutions or settings for the care and education of their children, and 4) What factors influence the allocation of time to children such as education, number of children in a family, maternal employment and father's role in child care? I would like to share some information which partly answers these questions drawn from recent studies of parents' time spent with children (Goldberg, 1978) and recent national surveys of young children's experiences in American families. The effects of adult time spent with children on children's learning and cognitive skills and academic achievement also needs to be considered. Data of this kind are also available.

The second source of information necessary for identifying the new role of early childhood educators is parents' changing attitudes of their role in the development of children. Of particular interest is parents' perception of their roles as educators of young children. Appropriate questions include, "Do parents consider it their responsibility to prepare children for first school experiences?"; "Which skills do parents believe children need in order to cope with first school experiences or development in general?";

"Do parents feel that learning skills or social skills should be the focus of early childhood education?"; and finally, "Which agents do parents feel are or should be responsible for the early development of their children--themselves, television, older siblings, preschools, or day care settings?" Results from an in-depth interview study conducted by the author on parents' attitudes about their role in preparing children for first school experiences will be reported in an attempt to answer these questions. (Goldberg, 1978b).

Equipped with this background information about the nature of children's daily learning experiences in the context of the family today, about the relationship between parents' time spent with children and children's social skills and learning abilities, and about which agents parents believe are responsible for the education and socialization of children, we can begin to consider new and responsive early learning and child care environments for children for the next decade.

SOCIETAL TRENDS: THE FAMILY AND MATERNAL EMPLOYMENT

First, let's set some groundwork by looking at children's lives in relationship to general trends in our greater society. Due to changing economic circumstances, patterns in the nature of the family, and women's increased participation in the labor force, the degree to which adults are available to and attending to children is drastically changing. Bronfenbrenner (1975) has recently reported on data compiled from Population and Labor Force Reports which indicate the changing nature and fragmentation of the American family. This is not news to any of you working with children and families, but the actual statistics bear heavily on the issues of availability of adults to children in our country today. He reports the following:

1) Today one out of six children under eighteen is living with one parent only. Single parent homes are most prevalent in families with children under six years and mostly due to the increased rate of divorce.

2) Most of these single parents are women, and 90 percent of them live in single households rather than with in-laws. Furthermore, the majority of single parent mothers are also working mothers.

3) These single parent homes are not quickly changing to intact families; the remarriage rate for single heads of household is lower than for males or females without children and the female rate of remarriage is 1/3 that of the male remarriage rate anyway.

4) Considering both intact and single parent homes, there are fewer adults in homes in general; the average is 2.2 adults, and it is dropping steadily. This means that there are fewer and fewer grandparents or extended family members around to assist in care-taking responsibilities or to serve as alternate role models for children.

5) The number of working mothers has doubled since 1948. Today, 51 percent of the mothers of children aged six to seventeen are in the labor force. One-third of women with children under six and one-third of women with children under three were in the labor force last year. Current research has demonstrated that having a working mother is not necessarily detrimental to a child's development. In fact, several studies have shown that a working mother who enjoys her work has a positive effect on her children's development (Hoffman, 1974; Wood, 1977). Yet working does reduce

available time to children and the nature of the alternate care chosen by parents for children can be critical (Goldberg, 1978).

PARENTS' TIME SPENT WITH CHILDREN IN USA: DEMOGRAPHIC CHARACTERISTICS

With this background information on family trends in our society, we can now move to a look at the ways in which these trends are affecting parent or adult-child interaction in our country. Several survey researchers in our country and abroad have conducted extensive research on the amount of time that parents spend in child care activities with their children. The nature of these investigations is the following. Adults, from all socio-economic groups, all education groups, and all ethnic groups in the United States and abroad were asked to account for the amount of time they spent in different activities during the day. These include time spent working, time spent in leisure, time spent in house related activities and time spent in child care activities. From this data, survey researchers have been able to estimate the amount of time that parents spend in child care activities and which demographic factors influence the time that parents allocate to children.

At the most gross level, we can compare ourselves--that is parents in the USA to parents in other countries. We rank about 6th in terms of time spent with children in a recent study of twelve Eastern and Western European countries and the United States (Szalazi, 1972). U.S. parents spend most time with children traveling in the car, and we ship our children out to other institutions (i.e. YMCA, YMHA, Scouts, School, etc.) more than parents in the other countries sampled. Fathers in our culture still only spend rarified time with their children while mothers assume most of the caretaking responsibilities.

Other recent survey research indicates that children in our culture spend more hours in school during a year and during their tenure in school altogether than do children in other cultures, and children spend more time in school than with their families (Coleman, 1974). Finally, children spend more hours in front of the television in a week than they spend in school (Eron & Lefkowitz, 1975). Thus the American family is outranked first by television and second by school in terms of quantity of time children are exposed to them. Needless to say, American children today are getting less and less attention from significant adults than in earlier times in our history.

With parents' allocation of time to child care activities declining steadily over the last fifteen years, survey researchers have also indicated trends in the time that parents spend with children based on family socio-economic status, maternal employment, parental education and age and number of children in the family.

Regardless of actual amount of time spent in child care activities, mothers studied in the Productive Americans survey in 1965 (Hill and Stafford, 1978), who worked and were of higher socio-economic status devoted two to three times as much time to children as mothers who worked and were of lower socio-economic status. Furthermore, in a panel study of Income Dynamics conducted in 1969 (Hill and Stafford, 1978), parents with some college education were found to devote twice as much time per child to their preschool children as did parents with no college education. In a more recent study conducted in 1976 and 1977, it was found that the time differential for high school graduates and non-graduates is not large when children are between ages 0 and 3, but women with at least some college education spend about two hours per week more on child care with children aged 0-3 than women with

less than a high school degree. As children get older, however, the time differential becomes more pronounced. Between the ages of 3-5, mothers with a college education devoted 251 minutes per week to child care while mothers with less than a high school degree devoted 138 minutes. So time allocated to children decreases as children get older, but the decrease is much more pronounced in the groups where the mother has a relatively low educational attainment.

A new social class trend is emerging for women's reduction of hours in the labor market due to the presence of a young child in the home. Earlier work showed that all mothers reduce their time in the labor market when a child is very young, but that mothers of higher socio-economic status withdrew from the market to a great extent and stayed out longer than did low socio-economic mothers. However, results from a study conducted in 1976-77 show a smaller per child reduction in labor market time for college educated women than for high school educated women (Stafford & Hill 1978). The authors suggest that this probably reflects a change in the last ten years in terms of increased labor market commitment by younger college educated women. Due to heightened interest in careers by women fostered by the women's movement and increased necessity for middle class women to work to augment family income, it appears that now more educated women are staying in the labor force longer and staying in the labor force even though they have very young children. On the other hand, women of less education and less socio-economic status are staying out of work during this time.

If, in general, as Bronfenbrenner suggests (1975) women are in the labor force more, there has to be a trade-off in the amount of time they devote to their children, to housekeeping activities, or to leisure time. The same survey research indicates that less educated women reduce their amount

of time in child care as they increase their time in the labor force whereas more educated women maintain their same levels of child care even though they've increased their hours in the labor force. More educated women have been found instead to reduce their leisure time and their number of hours sleeping What this means is that more educated women are maintaining their caretaking responsibilities, maintaining their work hours in the labor force and reducing their leisure time and hours sleeping. In addition, fathers have been found to participate more extensively, about 2 1/2 hours per week, in activities in the home as a function of their wives' going to work. There is contradictory evidence, however, as to whether or not they increase their caretaking responsibilities or their housekeeping responsibilities.

What about the relationship between family size and level of per child care? The data indicate that a college educated mother with two preschoolers will spend as much time in care per child as will a high school educated mother with one preschooler, and substantially more time in care per child than a grade school educated mother with one preschooler. In general, the effect of family size is to reduce care per child, but families of high economic status provide high levels of per child care even with larger numbers of children (Hill & Stafford, 1978).

The implications of these trends for early childhood educators are numerous First, many more children of all socio-economic groups are in alternative care settings. The needs of these children, in many ways, may overlap, but there may be specific experiences which each socio-economic group of children need based on the time their parents have available to them. Second, if we are concerned with the social and cognitive development of these children, we may need to think which experiences are not available in their

home environments given the relationship time they are afforded by their parents and the kinds of learning experiences available to them at home.

PARENTS' TIME SPENT WITH PRESCHOOLERS: A STUDY

To be more specific, I would like to report to you the findings from a study which I conducted on parental time, primarily mother's time spent with preschool age children. The goals of this study were to investigate 1) amount of time mothers spend with preschoolers in specific activities related to cognitive and social development; and 2) socio-demographic variables which influence mother's time spent with children. The study was conducted in the Spring, at which time, all the children were enrolled in preschools and day care centers and were going to enter kindergarten the following Fall. Their families were of middle income and mothers' mean education was two years post high school. In the context of a home interview, mothers were asked to report what they did for the twenty-four hours preceding the interview, who their child was with, and what their child was doing. They were asked to account for fifteen minute intervals.

From this data a number of summary scores were obtained. First, the quality of contact between mother and child was coded from the diaries. Direct time was time when mother and child were in concentrated, exclusive, one-to-one interaction; indirect time was when mother and child were near to one another but another child might be present or another family member might be present; and available time was when mother was only within shouting distance of the child but no physical or verbal contact was being made. Summary scores were made for direct, indirect, and available time spent betweem mother and child during a week. In addition, mothers were asked about the amount of time they spent in a week on specific activities including talking to the child, teaching the child things other than school related skills,

time in preparation for school, play time, time spent on outings, time spent in the car, time spent disciplining the child. Again, time in specific activities were summarized across the week. A social summary score was derived from adding together the amount of time mothers estimated they played with the child, ate with the child, put the child to bed, and went on outings with the child during the week sampled. An educational summary score was derived from adding the amount of time mothers taught their child things, read to their children, and prepared their children for school during the week sampled. Information about mothers' education, employment status, and number of children in the family was obtained.

The findings on the amount of time mothers spend in specific activities with children and the amount of time they spend in the three contact levels with their children can be summarized as follows. Mothers reported spending on the average, eight hours in direct contact with their children, twenty-seven hours in indirect contact with their children and twenty-nine hours in available contact with their children during the week sampled. Mothers estimated spending three times as much time in social activities than in educational activities with their preschoolers in a week. They spent a little over one hour a week reading to their children. This was the least amount of time spent on any of the activities measured. Mothers spent less than two hours teaching their children and in activities preparatory for kindergarten during the week. Play and bedtime activities consumed 2 1/2 to three hours a week, with outings and eating with the child taking between three and four hours duirng the week. Mothers watched TV with their children for approximately three hours during the week, an activity which consumed more time than the time spent in teaching and reading combined.

If we break these figures down per day, mothers spent approximately one hour a day in direct contact with their children. This does seem like a very small amount of time for preschool age children. There also seemed to be very little time in which mothers and children were engaged in reading and activities preparatory for school during a week, even though these children were very soon to be entering kindergarten.

How did demographic factors influence parent's allocation of time to children? Mothers were divided into two groups; low education which was eight years to twelve years, meaning mothers who attended or graduated from high school; and fourteen years to seventeen years meaning mothers who had anywhere from two years to four years of college education. There were differences in the amount of time that mothers in the two education groups spent with their children. More educated mothers gave higher estimates of the amount of time they spent reading to their children and they were also found to engage in more indirect contact with their children.

Mother's employment showed some interesting effects on allocation of time to children. Mothers were divided into groups including 1) mothers who were employed full-time, 2) mothers who were employed part-time, and 3) mothers who were not employed but stayed at home with their children. Mothers who worked full-time were found to have less indirect and available contact with their preschoolers than mothers who worked part-time or mothers who did not work at all. However, mothers who worked full-time and mothers who did not work at all had the same amount of direct, one-to-one contact with their preschoolers. In other words, it would appear that mothers who stay home with their children are not necessarily engaging in more intense, direct contact with their children than mothers who work full-time.

Therefore, we can conclude from these data that at least in this way mothers who work and mothers who do not work are not that different in terms of amount of high intensity and high quality time they spent with their children. There were no differences in the amount of time that mothers spent in specific activities or at various levels of contact with boys vs. girls, or four vs. five year-olds.

From these data, again we see that maternal education and employment influence the amount of time that mothers spend with children, but the exact amounts are not that different for mothers of different education level and employment status. These same factors, however, especially mothers' education, did have a significant, qualitative impact on mothers' time use as will be seen in the next discussion of the relationship between mothers' time spent with children and children's academic achievement and cognitive development.

HOME ENVIRONMENT INFLUENCE ON CHILDREN"S COGNITIVE DEVELOPMENT AND ACADEMIC ACHIEVEMENT

The fact that a child's home environment has an impact on his/her learning and cognitive development is news to individuals who work with children. In addition, many studies have clearly demonstrated that the provision of early learning materials in the home, early reading to children, encouragement of language development, and encouragement of academic achievement are all related to intellectual development and academic success in school aged children. More recent studies have indicated even more subtle aspects of parent-child interaction during learning situations in the home which promote intellectual competence and pre-academic skills in young children.

For instance, with infants recent studies have shown that maternal interaction with infants in order to facilitate intellectual development, must go beyond the simple caretaking function (Rheingold, 1960; Schaeffer & Emerson, 1964). Attentiveness on the part of the mother must be of such a quality that her responses whether they involve playing with materials or consist of purely verbal contacts encourage responses on the part of the infant (Rubenstein, 1967; Beckwith, 1971; Yarrow, 1972; Bradley & Caldwell, 1976). Not only should the mother actively seek responses from the infant, but she should also respond immediately to responses which the infant initiates (Clark-Stewart, 1973; Beckwith, Cohen, Kopp, Parmelee, & Marcy, 1976).

A recent longitudinal study by White and Watts (1973) has shown that competency in very young children is related to maternal style of interaction. They found that children who were high in competency at the age of three were distinguished from children low in competency only in their interactive intellectual experiences until the age of two. During these experiences the mother and child were actively sharing in an activity; whether she was actually teaching the child or just playing with him or talking to him, she was an active participant in the interaction. Mothers of competent toddlers (a) interacted with them more, (b) engaged in more intellectually stimulating activities with them, (c) taught them more often. Fifty-five percent of the variance of study of children's IQ at three years could be attributed to intellectual stimulation received from others in the home environment. In summary, it is the interactor who creates or helps to create the intellectual content in any given activity.

Social class differences have also been found in adult-child interaction in the home. Through extensive observations in the home of lower and middle class four year olds, Schogen and Schogen (1971) found no significant variation in amount of general input from the environment or rate of input to a particular child from all agents (parents, sibs, neighbors, etc.) combined. However, children of middle income families showed significantly higher rate per minute interaction with their mothers, engaged in significantly more cyclical exchanges with people in the environment, and engaged in a greater number and a higher percent of interactions in which there was a verbal component than children of low income families.

The intellectual correlates of the daily routines of pre-school children have been investigated in England by Lawson and Ingleby (1974). Children of higher IQ at three years of age were found to 1) engage in less general play, 2) spend less time alone or separated from family members, 3) spend less high intensity (one-to-one) and low intensity time with mother, but more moderate intensity time with her, 4) interact more with other children at a moderate level of intensity, and 5) receive more moderate attention from any one in the family. Quite unexpectedly, moderate intensity interaction time when more people than just the target child and adult or child were together was more significantly related to intellectual development than high intensity or one-to-one interaction.

Finally, experiences which children have in the family context, prior to entering formal school have been found to be related to early reading skills and to predict academic achievement up to the third grade. Stevenson, et al. (1976) found that the number and letter skills that children knew before they entered kindergarten proved to be good predictors of what they

would learn in the course of their first three years of instruction. That is, children's abilities in counting skills and recognizing numbers and identifying and naming letters tested the summer before they entered kindergarten proved to predict reading and arithmetic achievement measured each year subsequently until the third grade.

Delores Durkin (1963), has reported in a longitudinal study of children who learn to read before first grade. According to parent questionnaires, children who learned to read before first grade were taught to read by someone. Their learning to read was not a chance happening. In most instances, early readers received some sort of beginning reading instruction by one of the parents or sometimes by a sibbling's Mothers of early readers reported identifying words when asked, talking about words, pointing words out when reading and asking questions about the content of stories, whereas mothers of non-early readers did not. Parents of early readers attributed early reading to the availability of paper and pencils, reading materials in the home, a blackboard in the home, and children's interest in the meaning of words. The most influential agent in teaching early readers to read was mother (93% indicated mother) whereas the influence of sibbling or fathers was negligible (father - 3%, sister - 13%, brother - 7%).

Durkin points out a critical attitudinal characteristic of mothers of early readers. That is, that mothers of early readers not only read to their children more often and engaged them in skill activities related to reading, but more importantly, as opposed to mothers of non-early readers, these mothers feel that they SHOULD give help to their children--that teaching is not the sole province of the school teacher. It seems from this and other related studies that parents' teaching efforts with their preschoolers

are rooted in a belief that interacting with children and sharing activities with them is an important aspect of daily life.

The purpose of the study which I want to report to you now on maternal time use and children's preschool performance was aimed at investigating the quantity and quality of interaction shared between mothers and children related to academic achievement and school success.

MATERNAL TIME USE AND CHILDREN"S PRESCHOOL PERFORMANCE:

Weekly estimates of amount of time spent by mothers with preschoolers in three contact levels (e.g. direct, indirect, and available) and five specific activity times (e.g. reading, teaching, kindergarten preparation, social summary, and TV with mother) were obtained. Children were also tested with a multi-battery of tasks tapping many cognitive and school-related skills. Finally, teachers rated the children on thirteen intellectual, classroom, and personal-classroom skills. The relationship between mothers' time spent with preschoolers and children's preschool performance was derived by comparing these sets of information.

The major finding was that mother's time alone had little relationship to children's performance, but that time in interaction with mothers' education level did have definite and consistent relationships to children's preschool performance. More specifically, it was found that when high education mothers spent more time in activities preparatory for kindergarten with their preschoolers, their children did better on a number of verbal, mathematical reasoning, and pre-achievement tests. Contrarily, when low education mothers spent more time in activities preparatory for kindergarten with their preschoolers, their children did more poorly on these same tests. In addition, children's style in approaching and solving problems, that is how they

figured out puzzles and whether or not they used effective strategies when performing tasks was affected in the same way. More time spent in preparatory activities with high education mothers had a positive influence on children's performance style and strategies in approaching problems, whereas more time spent with low education mothers seemed to have a detrimental effect on children's style in performing the same problems. These same kinds of findings although studied very differently, have been found by other researchers and suggest that one of the things that parents convey to children is a learning style or a learning set.

Finally, further support for the relationship between mother's education, time, and children's performance came from the teacher rating data. Children who received higher ratings by their preschool teachers on effective learning, paying attention, cooperation in the classroom, and interest in their surroundings had spent more time in activities preparatory for school with high education mothers, whereas those who received lower ratings had spent more time in preparatory activities with low education mothers.

Several conclusions can be drawn from these findings. First, a mother's level of education contributes to the degree to which she has an effect on her child's learning. We must remember these mothers were of relatively high educational attainment--the average was two years post-high school education--so we are not talking about women who have less than a grade school education. Even women with high school diplomas were in the low education group. Second, this interaction effect seems to influence not only children's performance on achievement measures but also children's style and approach to learning situations and teachers' ratings of children's school performance. It would appear, then that the learning atmosphere that

mothers of different educational levels created in their homes permeated many aspects of the child's learning, including a child's motivation to learn, his strategies for learning new and different things, and his interest in his whole environment. Finally, these data suggest that assisting parents to learn effective approaches to teaching things to their children should have a positive effect on children's adjustment to school and subsequent achievement.

Certainly, the motivation behind many home based programs has been to involve mothers in the education process and to teach them how to teach their children. If anything, this data seems to confirm and support these kinds of programs.

PARENTS' PREPARATION OF CHILDREN FOR FIRST SCHOOL EXPERIENCES:

The last source of information which I want to share with you relates to parents' actual preparation of their children for first school experiences. As much as it is important to understand what parents do to prepare their children for school, it is also important to know how parent's feel about their role as educators of their young children. A specific part of this study investigated parent's preparation of their children for first school experiences. All of these children were about to begin kindergarten when they were studied. As a part of the interview, a specific section was devoted to questions about preparation of children for first school experiences. Mothers were asked if they were preparing their children for school, if they thought it was important to prepare children for school and the specific kinds of activities that they were doing to prepare children for school. From mothers' reports we were able to obtain the following information. 1) Whether or not children know their numbers and letters and other things that were important for

school, 2) how they were learning these things, and which agents parents thought were responsible for preparation, including parents, learning materials in the home, siblings, nursery school, or television.

First, did mothers think it was important to prepare their children for school and why? Of the 93 mothers interviewed, 87% answered "yes" to the question "Are you preparing your child for kindergarten", and 80% thought it was important to prepare children for preschool. Thirty-five percent of the mothers indicated it was important to prepare their children for school so that they would know social skills and what to expect, and 30% indicated it was important that children know academic skills and have the right attitude toward learning. Few indicated getting children ready for separation or knowledge of self-help skills as reasons for preparation. Of those 16 mothers who said they weren't preparing their children for school, over half said their children could already read, and one-third said nursery school had prepared them, children shouldn't be pushed, or parents might teach them wrong.

The actual ways in which children were prepared for school was also interesting. When asked how they were preparing their children for school, 50% of the mothers indicated they were teaching children social skills, 40% were teaching the alphabet, 25% were teaching numbers and informational self-help skills, and less than 20% were providing physical preparation, or social self-help skills. Interestingly, only one-half of the mothers indicated that sending their children to nursery school was a form of preparation, even though all children were enrolled in nursery school or day care at the time of the interview.

Specific information about children's knowledge of numbers and letters and how they learned them was also obtained. Mothers reported that children knew their numbers and letters. The frequency with which different agents were mentioned as responsible for children's acquisition of number and letter skills was the following: 1) For numbers, parents, television and nursery school were mentioned in that order from most frequent to least frequent, and 2) for letters, the order was parents, nursery school, and television, respectively. Siblings' role in teaching numbers and letters was at the 15% level only. Learning materials in the home were more often the agent of learning for letters than numbers.

Finally, what other things children know which mothers' deemed important for school and how they learned them was obtained.

Considering the other things parents mentioned that children know besides numbers and letters which are important for school, one-half of the mothers indicated other cognitive and perceptual skills, while one-third mentioned verbal skills, informational self-help skills and social skills. Children were taught other things preparatory for school primarily by their parents--that is 75% of the time. One-third of the parents indicated that nursery school was responsible for children learning other things and one-third indicated that children initiated the other activities and parents only responded. Other agents of learning including siblings, television, and learning materials were mentioned very infrequently.

It is clear from these findings that parents, nursery school, and television, at least from the point of view of parents share in the responsibility of preparing children for first school experiences. Some agents seem to be more prevalent with certain parents than others.

There were differences in the academic preparation of children by more and less educated mothers; more educated mothers reported less academic preparation of their children, while less educated mothers reported more academic preparation. However, the two groups of mothers did not differ in their non-academic preparation; that is, there were no differences in the degree to which low and high education mothers familiarized children with school, taught children social skills, make physical provisions for school or taught children social and informational self-help skills. The number of hours a mother worked per week influenced the amount of time she devoted to non-academic preparation but not academic preparation. That is, working mothers were no different from non-working mothers in the amount of academic preparation they reported, but they reported preparing their children less in non-academic areas. The more hours a week mothers worked, the more frequently television and nursery school were mentioned as agents for preparing children for school.

The number of ways mothers were preparing their children for school both academically and non-academically was closely related to their estimates from the time diaries. Mothers who reported more preschool preparation time had higher weekly estimates of time spent with their children, in general, and more teaching time, playing time, eating time, social activity time with their children indicated in their diaries.

In regards to type of preparation, mothers seemed to fall into two groups: 1) those mothers who prepared their children by teaching academic skills like numbers and letters and other similar concepts, and 2) mothers who prepared their children by teaching them non-academic things, like familiarizing them with school, teaching informational self-help skills and social self-help skills and physical preparation like going shopping for school clothes.

These two groups of mothers were very consistent in both reporting which set of preparatory skills, exclusive of the other, they were exposing their children to, and which reasons they gave for their preparatory activities. The "academic preparers" emphasized the need for children to know some academic skills before entering school and having the right attitude about learning, while the "non-academic preparers" emphasized such reasons as preparation for separation from home and mother, knowing social skills before entering school and knowing what to expect and how to handle situations with self help skills. In general, the academic preparers felt that children had not learned these things at nursery school.

Just recently, the parent preparation study was replicated utilizing a much more refined interview instrument and the same daily diary method (Dunn, 1978). Fourteen mothers cooperated in this study whose children were enrolled in local preschools. In the interview, mothers were asked to give estimates of time spent at the three levels of intensity of contact (Direct, Indirect, Available) and three educational activities including reading, didactic teaching and number of informal educational exchanges. Other sections of the interview were designed to 1) determine the extent of the home as an agent of skill acquisition; 2) determine mothers' beliefs about their role as educators of young children and that of the preschool; and 3) to investigate mothers' beliefs on how working status and family structure (presence or lack of other siblings) affect time use and the quality of interaction possible between mother and the study child.

On the basis of the relationships found in the pilot study, the existence of two "maternal teaching types" were hypothesized. The critical elements in determining these types stem from maternal beliefs on preschool preparation.

One group of mothers, the "A" type mothers, make efforts to teach their children special skills at home. These mothers also have a large number of educational exchanges with their children, and they supply them with a large number of educationally relevant materials at home. However, they delegate the job of teaching academic skills to the preschool. If a type "A" mother's child were not in preschool, she would be spending more time teaching academic skills but since the child is enrolled, she leaves this job to the preschool. Type "A" mothers appear, then, to feel that the home should be a general learning environment, while academic learning should take place at school. The children of type "A" mothers did learn a majority of academic skills from the preschool as reported by their mothers. Reflecting their beliefs, these mothers spend less time teaching their children didactically, but more time reading to their children; they also spend more time separate from their children, and less time in direct contact with them. Mothers with a more extensive employment history and more highly educated mothers tend to be type "A" mothers.

Type "B" mothers, on the other hand, do not delegate the job of teaching academic skills to the preschool. Were the child not enrolled in the preschool, the mother would not be preparing her child for grade school differently, since she is already teaching academic skills at home. The type "B" mother, in fact, is more involved in teaching academic skills than in teaching supplementary skills; she has fewer educational exchanges with her child and provides fewer educational materials for his use than the type "A" mother. The home is the major agent for academic skill acquisition for the children of type "B" mothers. Also reflecting their beliefs, type "B" mothers spend less time separate from their children, more time in direct contact with them, and more time didactically teaching them. Mothers who were less educated and worked fewer hours tended to be type "B" mothers.

It should be noted that these are preliminary results gathered on very few subjects. A replication of the study is in progress with a larger sample and a refined instrument. Although the trends are very interesting and significant, we must await further confirmation of these findings.

PRESCHOOL PREPARATION AND CHILDREN'S PERFORMANCE:

Children's performance on the preschool battery and teachers' ratings of their behavior were related to the types and agents of preparation provided children. The results are too numerous to report here in full, however, a few interesting trends seem to be emerging.

There were very few relationships between preschool preparation and children's performance on the battery of tests. However, several are worth mentioning. The more academic preparation mothers' mentioned, the more poorly children did on two subtests of the arithmetic test and on approach to solving problems. However, the more other things mothers reported their youngsters knew besides numbers and letters, the better they performed on tests of verbal recall, vocabulary, style on problem solving and most of the subtests and total score of the reading and arithmetic achievement tests. Also, the most effective agent of learning these other things was for parents to teach them as opposed to nursery school or TV or siblings. This may reflect the fact that mothers who gave responses to this question "What other things does your child know which are important for school?" may have thought more about their children's learning and what kinds of experiences constitute preparation. They may also, in fact be planning these kinds of activities for their youngsters.

In addition, it may give support to Moore's (1977) argument, that it is often the non-didactic experiences which count in developing a positive approach to learning in children other than didactic learning of basic number and letter skills.

Finally, which agents of preparation seem to be most effective in teaching children skills which enable them to perform best on school related tasks. These data are very preliminary so we have to reserve judgement for replication and furhter analysis. It looks like contrasting parents vs. teachers as agents of learning for children in number skills, the nursery school does a better job, as children taught number skills by nursery school and not by parents did better on several teacher ratings, vocabulary, and number and letter skills tested in the battery of tests. If we contrast the effectiveness of television and parents or television and teachers, television does a better job in terms of children's performance on the same tasks and teachers' ratings of their behavior.

In summary, we can see that the kinds of preparation and agents of preparation can have considerable influence on children's cognitive development and school learning.

SUMMARY AND CONCLUSIONS:

Now, armed with these four sets of information including 1) changing patterns in society which affect parent-child relationships, 2) general and specific trends in the amount of time that parents spend in activities with their children, 3) the impact that parent's time spent with children has on their children's preschool performance, and 4) the role of parents in preparing their children for school, we can now engage in a discussion of how this information might influence decisions by early childhood educators who are attempting to create responsive environments for young children.

1. All trends seem to suggest that more and more children are receiving less time from their parents, and more time from other adults in alternate care settings. As early childhood educators, our job has thus increased and will continue to increase at ever

faster rates. Yet now we are faced with the dilemma of determining which of the multiple possible roles we choose to assume with our young charges. Perhaps one role we must assume is that of helping parents re-assume some of the responsibility for children they seem to be relinquishing. Helping parents develop proper skills to fulfill their caretaking roles is yet another role early educators must take. We need to not have early childhood education supplant the family, to take over responsibilities from the family, but to help families work with their own children in productive ways given the limitations of their time available.

2. All children, regardless of the education level or socio-economic status of their families are receiving less attention from parents and extended family members. This is showing its effect in older childrens' reports of feeling distant from parents, a feeling of less warmth from parents, relying more on peers for companionship, and on higher rates of delinquency and suicide by youngsters. We have a critical shortage of person-power for children growing up today. Putting cognitive development and academic achievement aside, we need to concern ourselves with children's emotional development including sources of friendship and attention available for children. One focus of our early childhood settings needs to be careful planning of available time for children and adults to develop relationships and closeness. I wish these could be restored to the family, but until that time we need to assume that role. At the same time, we need to help parents build the time and skill into their schedules and repertoires for relationships with children.

3. The fact that more educated women remain in the labor force when they have young children but less educated women are dropping out is a new trend for us. More educated women do manage to keep up high levels of time with children when they are in the labor force, but less educated mothers don't seem to. These same less educated women report that they are assuming the role of teachers of their young children, while more educated mothers are turning the job over to nursery school. However, less educated mothers who spend time teaching their children things have not proven to be the most effective teachers. Ironically, more educated mothers whose teaching time has a positive effect on children are relinquishing the role. Thus we have a trend in which mothers who are probably more effective teachers of young children are turning this role over to early educators and mothers who may be less effective teachers are assuming the role themselves. This is just a preliminary trend and needs to be investigated further, but it suggests several things.

   a. Staffs of early childhood centers need to investigate the assumptions of parents and staff about what their roles are. Of the numerous things which children need to learn, parents need to be encouraged to do those things which they are capable of, and to be guided in how to do things in areas in which they can improve.

   b. The role of mothers education seems to be such an important mediator between her time spent with her child in a teaching role, that opportunities for mothers to receive formal and informal education in general and specific activities to do

with children in particular must be a major focus of early childhood education. An extreme example of this would be actually making early childhood centers places for educating parents as much as children. Now this is not a new idea, many fine research and demonstration projects have implemented parent programs. But the scale has not been large enough to meet the need as indicated by research such as that mentioned here. General education for mothers, including a high school diploma or beginning college, training mothers to be teachers of children, and teaching children all need to be integrated in contemporary child care settings.

4. Mothers obviously differ in their preparation of children for school and their attitudes about who is responsible for preparation of children. These ideas need to be explored between teachers and parents and a division of labor established, or at least goals established. We can't assume that children will eventually end up with all of the experiences which are valuable for development unless we sit down and consider what pieces are missing in a child's experience and how we can fill in the gaps through multiple programs.
5. Didactic learning of numbers and letters, etc, is not the only thing which is important for success in school. Children need many other experiences to increase their motivation to learn, and their curiosity about the world. The data presented here confirms that things children knew other than number and letter skills were more highly related to cognitive development and academic achievement than number and letter skills. Parents

and teachers need to encourage these kinds of experiences for children and to help parents recognize that their daily routine activities with children are tremendously important for their children's development.

6. Finally, early childhood educators have a big job ahead of them. Not only must we weigh for ourselves what role we have in the early experience of children, but we need to help parents identify and select their roles more confidently.

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